

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF INDIANA
HAMMOND DIVISION

UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	Civil No. 2:96 CV 095 RL
)	
and)	Judge Rudy Lozano
)	
THE STATE OF INDIANA, STATE OF OHIO, and)	
the NORTHWEST AIR POLLUTION AUTHORITY,)	
WASHINGTON,)	
)	
Plaintiff-Intervenors,)	
)	
v.)	
)	
BP EXPLORATION & OIL CO., ET AL.)	
)	
Defendants.)	
)	
)	
)	

SECOND AMENDMENT TO CONSENT DECREE

WHEREAS, the United States of America (hereinafter "the United States"); the State of Indiana, the State of Ohio, and the Northwest Pollution Control Authority of the State of Washington (hereinafter "Plaintiff-Intervenors"); and BP Exploration and Oil, Co., BP Products North America Inc., f/k/a Amoco Oil Company, and Atlantic Richfield Company (hereinafter, collectively, "BP") are parties to a Consent Decree entered by this Court on August 29, 2001 (hereinafter "the Consent Decree");

WHEREAS BP sold its Mandan and Salt Lake City Refineries to Tesoro Petroleum Corporation ("Tesoro") on September 6, 2001, and as a condition of that sale, Tesoro entered into the First Amendment To Consent Decree, which was approved and entered as a final order of the Court

on October 2, 2001, and which amendment modified the terms of the Consent Decree as provided therein (hereinafter "the First Amendment);

WHEREAS, BP has agreed to sell and Giant Yorktown, Inc., a Delaware corporation (hereinafter "Giant") has agreed to buy one of the refineries covered by that Consent Decree, to-wit: the BP Products North America Inc. f/k/a Amoco Oil Company Refinery located at Yorktown, Virginia (hereinafter "the Yorktown Refinery");

WHEREAS, Giant has contractually agreed to assume the obligations of, and to be bound by the terms and conditions of, the Consent Decree as such obligations, terms and conditions relate to the Yorktown Refinery; and

WHEREAS, the United States and Plaintiff-Intervenors agree, based on Giant's representations, that Giant has the financial and technical ability to assume the obligations and liabilities of the Consent Decree as they relate to the Yorktown Refinery; and

WHEREAS, the United States, Plaintiff-Intervenors, BP and Giant desire to amend the Consent Decree to transfer to Giant the obligations, liabilities, rights and releases of the Consent Decree as it pertains to the Yorktown Refinery and to release BP from its obligations and liabilities under the Consent Decree insofar as they relate to the Yorktown Refinery; and

WHEREAS, with respect to BP's Texas City, Texas Refinery, BP and the United States have identified and wish to correct an error in Paragraph 15 of the Consent Decree, which error does not affect any other Party to the Consent Decree; and

WHEREAS, each of the undersigned has reviewed and hereby consents to this Second Amendment; and

WHEREAS, Paragraph 85 of the Consent Decree requires that this Amendment be approved by the Court before it is effective;

NOW THEREFORE, the United States, Plaintiff-Intervenors, BP, Tesoro and Giant hereby agree that, upon approval of this Amendment by the Court, the Consent Decree shall thereby be amended as follows:

1. Except as provided in Paragraph 2 of this Amendment, Giant hereby assumes, and BP is hereby released from, all obligations and liabilities imposed by the Consent Decree on the Yorktown Refinery from the date lodging of the Consent Decree, and the terms and conditions of the Consent Decree as they relate to the Yorktown Refinery shall hereafter exclusively apply to, be binding upon, and be enforceable against Giant to the same extent as if Giant were specifically identified and/or named in those provisions of the Consent Decree from the date lodging of the Consent Decree.

2. Giant shall not be responsible for any portion of the civil penalty provided for in Section IX of the Consent Decree, which civil penalty the United States and Plaintiff-Intervenor State of Indiana hereby acknowledge has been paid in full.

3. Paragraph 3 of the First Amendment is hereby stricken and Paragraph 15 of the Consent Decree, as modified by Paragraph 4 of the First Amendment, is hereby further modified to read, in its entirety, as follows:

15. NOx Emissions Reductions From Heaters and Boilers

A. BP shall install NOx emission control technology on certain specified heaters and boilers at its Carson, Cherry Point, Texas City, Toledo and Whiting Refineries. Tesoro shall install NOx emission control technology on certain specified heaters and boilers at its Mandan and Salt Lake City Refineries. Giant shall install NOx emission control technology on certain specified heaters and boilers at its Yorktown Refinery. The heaters and boilers proposed for control by BP, Tesoro and Giant shall be selected in accordance with the requirements of this Paragraph.

B. i. BP shall select the heaters and boilers that shall be controlled at the Carson, Cherry Point, Texas City, Toledo and Whiting Refineries. The combined heat input capacity of the heaters and boilers selected by BP for future control, together with the heaters and boilers on which controls identified in Paragraph 15.E. have already been installed, must represent a minimum of 61.2 % of the five refineries' heater and boiler heat input capacity in mmBTU/hr for those heaters and boilers greater than 40 mmBTU/hr, which for purposes of the Consent Decree is represented to be approximately 38,216 mmBTU/hr across the five refineries. Further, not less than 30% of the heater and boiler heat input capacity for heaters and boilers greater than 40 mmBTU/hr at any individual refinery must be controlled in accordance with Paragraph 15.E. For purposes of this Paragraph, the phrase "heaters and boilers" shall include the turbines associated with sources PRS4-410 and PRS4-420 at BP's Texas City Refinery.

ii. No later than January 18, 2005, BP shall complete installation of controls on heaters and boilers at the Carson, Cherry Point, Texas City, Toledo and Whiting Refineries having a combined firing capacity of 16,238 mmBTU/hr heat input capacity. No later than January 18, 2005, BP shall propose a schedule for installation of the controls on the remaining heaters and boilers required to be controlled under Paragraph 15.B.i.

iii. Where BP affirmatively demonstrates to EPA's satisfaction that it is technically infeasible to install NOx controls for heaters/boilers to meet the 30% minimum requirement for any of its petroleum refineries, BP shall make up any shortfall by achieving NOx reductions corresponding to the shortfall from other sources at the refinery where the

infeasibility was demonstrated, which may include external credit purchases in the same Air Quality Control Region.

C. i. Tesoro shall select the heaters and boilers that shall be controlled at the Mandan and Salt Lake City Refineries. The combined heat input capacity of the heaters and boilers selected by Tesoro for future control, together with the heaters and boilers on which controls identified in Paragraph 15.E. have already been installed, must represent a minimum of 35.8% of the two refineries' heater and boiler heat input capacity in mmBTU for those heaters and boilers greater than 40 mmBTU/hr, which for purposes of the Consent Decree is represented to be approximately 1,786 mmBTU/hr across the two refineries. Further, not less than 30% of the heater and boiler heat input capacity for heaters and boilers greater than 40 mmBTU/hr at each individual refinery must be controlled in accordance with Paragraph 15.E.

ii. No later than January 18, 2005, Tesoro shall propose a schedule for installation of the controls on the heaters and boilers required to be controlled under Paragraph 15. C. i.

iii. Where Tesoro affirmatively demonstrates to EPA's satisfaction that it is technically infeasible to install NOx controls for heaters/boilers to meet the 30% minimum requirement for any of their petroleum refineries, Tesoro shall make up any shortfall by achieving NOx reductions corresponding to the shortfall from other sources at the refinery where the infeasibility was demonstrated, which may include external credit purchases in the same Air Quality Control Region.

D. i. Giant shall select the heaters and boilers that shall be controlled at the Yorktown Refinery. The combined heat input capacity of the heaters and boilers selected by

Giant for future control, together with the heaters and boilers on which controls identified in Paragraph 15.E. have already been installed, must represent a minimum of 33.3% of the Yorktown Refinery's heater and boiler heat input capacity in mmBTU for those heaters and boilers greater than 40 mmBTU/hr, which for purposes of the Consent Decree is represented to be approximately 935 mmBTU/hr.

ii. No later than January 18, 2005, Giant shall propose a schedule for installation of the controls on the heaters and boilers required to be controlled under Paragraph 15.D. i.

iii. Where Giant affirmatively demonstrates to EPA's satisfaction that it is technically infeasible to install NOx controls for heaters/boilers to meet the 33.3% minimum requirement, Giant shall make up any shortfall by achieving NOx reductions corresponding to the shortfall from other sources at the Yorktown Refinery, which may include external credit purchases in the same Air Quality Control Region.

E. BP, Tesoro and Giant shall select one or any combination of the following methods for control of NOx emissions from individual heaters or boilers selected by each company pursuant to Paragraphs 15. B., C. and D.:

- i. SCR or SNCR;
- ii. "current generation" or "next generation" ultra-low NOx burners;
- iii. other technologies which BP, Tesoro or Giant demonstrates to EPA's satisfaction;
- iv. permanent shutdown of heaters and boilers with revocation of all operating permits; or
- v. modification of operating permits to include federally enforceable requirements limiting operations to emergency situations (e.g. failure or inability of First Energy to supply steam to the Toledo Refinery; provided, however, that, any heater or boiler controlled under this provision shall not be counted toward satisfaction of the requirements of Paragraph 15. B., C. or D.,

but shall be counted in determining whether the requirements of Paragraph 15.F. are satisfied.

F. i. Following installation of all controls required by Paragraph 15.B.i., BP shall demonstrate that the allowable emissions from the controlled heaters and boilers at the Carson, Cherry Point, Texas City, Toledo and Whiting Refineries satisfy the following inequality:

$$\sum_{i=1}^n (E_{\text{Final}})_i \leq \sum_{i=1}^n (E_{\text{Baseline}})_i - 9,344$$

Where:

$(E_{\text{Final}})_i$ = Permit allowable pounds of NOx per million Btu for heater or boiler i times the lower of permitted or maximum rated capacity in million Btu per hour for heater or boiler i;

and

$(E_{\text{Baseline}})_i$ = The ton per year actual emissions shown in Appendix A for controlled heater or boiler i.

ii. Following installation of all controls required by Paragraph 15.C.i., Tesoro shall demonstrate that the allowable emissions from the controlled heaters and boilers at the Mandan and Salt Lake City Refineries satisfy the following inequality:

$$\sum_{i=1}^n (E_{\text{Final}})_i \leq \sum_{i=1}^n (E_{\text{Baseline}})_i - 248$$

Where:

$(E_{\text{Final}})_i$ = Permit allowable pounds of NOx per million Btu for heater or boiler i times the lower of permitted or maximum rated capacity in million Btu per hour for heater or boiler i;

and

$(E_{\text{Baseline}})_i$ = The ton per year actual emissions shown in Appendix A for controlled heater or boiler i.

iii. Following installation of all controls required by Paragraph 15.D.i., Giant shall demonstrate that the allowable emissions from the controlled heaters and boilers at the Yorktown Refinery satisfy the following inequality:

$$\sum_{i=1}^n (E_{\text{Final}})_i \leq \sum_{i=1}^n (E_{\text{Baseline}})_i - 40$$

Where:

$(E_{\text{Final}})_i$ = Permit allowable pounds of NO_x per million Btu for heater or boiler i times the lower of permitted or maximum rated capacity in million Btu per hour for heater or boiler i;

and

$(E_{\text{Baseline}})_i$ = The ton per year actual emissions shown in Appendix A for controlled heater or boiler i.

G. BP, Tesoro or Giant (as the case may be) shall receive a premium of 1.5 times the mmBTU/hr for each of the heaters and boilers for which it elects to install next generation ultra-low NO_x burners to meet the applicable percent control requirements of Paragraphs 15.B., C. and D.

H. i. Appendix A to this Consent Decree provides the following information for each of the eight refineries subject to this Consent Decree: (a) a listing of all heaters and boilers with firing capacities greater than 40 mmBTU/hr; (b) the baseline actual emission rates in lbs/mmBTU and tons per year; and (c) BP's, initial identification of the heaters and boilers that are either already controlled or are likely to be controlled in accordance with Paragraphs 15. B, C. or D., as the case may be.

ii. Within ninety (90) days of the Date of Lodging, BP shall provide EPA with an updated version of Appendix A identifying the heaters and boilers that are expected to be controlled in calendar year 2001. To the extent known at the time, this update shall also include, for each heater or boiler expected to be controlled during calendar year 2001, the following information:

- a. The baseline actual emission rate in lbs/mmBTU, and the basis for that estimate,
- b. The actual firing rate used in the baseline calculation and the averaging period used to determine the firing rate;
- c. The proposed NOx emission control technology to be installed on each such heater or boiler;
- d. The projected allowable emission rate in lbs/mmBTU, tons per year, and the basis for that projection.

BP shall expeditiously begin installation of controls on the heaters and boilers identified in this update.

iii. On or before December 31, 2001 (December 31, 2002 for Giant), and on or before December 31 of each subsequent year until the relevant Company has installed all controls required by Paragraphs 15.B., C. or D., as applicable, BP, Tesoro and Giant shall each provide EPA with further updates of the portions of Appendix A applicable to the refineries owned by such Company ("the Annual Heater and Boiler Update Report). Each such Annual Heater and Boiler Update Report shall include the following:

- a. For each heater and boiler on which controls specified in Paragraph 15.E. have already been installed, the NOx emission control technology installed, the measures NOx emission rate in lbs/mmBTU, and the method by which that emission rate was determined;

- b. An identification of the additional heaters and boilers on which controls meeting the requirements of Paragraph 15.E. are expected to be installed in the next calendar year, and, insofar as known at the time the report is prepared, the proposed NOx emission control technology to be installed on each such heater and boiler, the projected emission rate in lbs/mmBTU, and the basis for that projection;
- c. The additional heaters and boilers on which controls are expected to be installed in the future years in order to meet the applicable requirements of Paragraph 15. B., C, or D., as applicable;
- d. A demonstration that control of the heaters and boilers identified pursuant to subparagraphs (a) – (c) above meet the applicable requirements of Paragraph 15. B., C, or D., as applicable; and
- e. An estimate of annual emissions, demonstrated through statistically significant random sampling, of the remaining heaters and boilers identified in the applicable portions of Appendix A that are not anticipated to be controlled pursuant to the requirements of this Paragraph.

I. Within ninety (90) days of the date of installation of each control technology for which BP, Tesoro or Giant seeks recognition under Paragraph 15.B., C. or D. as the case may be), BP, Tesoro or Giant (as the case may be) shall conduct an initial performance test for NOx and CO. In addition, BP shall install, operate, and calibrate a NOx CEMS on the thirty-two (32) largest heaters/boilers being controlled under this Paragraph that did not have NOx CEMS as of August 29, 2001; Tesoro shall install, operate, and calibrate a NOx CEMS on the two (2) largest heaters/boilers being controlled under this Paragraph that did not have

NOx CEMS as of August 29, 2001; and Giant shall install, operate, and calibrate a NOx CEMS on the one (1) largest heater/boiler being controlled under this Paragraph that did not have NOx CEMS as of August 29, 2001.

J. Upon installation of controls for which BP or Giant (as the case may be) seeks recognition under Paragraph 15. B. or D. on any boiler greater than 100 mmBTU/hr that is not equipped with a CEMS, BP and Giant shall monitor performance of those controls in accordance with the monitoring plan entitled "Heater and Boiler Monitoring Plan" submitted by BP on November 20, 2001 as finally approved by EPA. Upon installation of controls for which Tesoro seeks recognition under Paragraph 15. C. on any boiler greater than 100 mmBTU/hr that is not equipped with a CEMS, Tesoro shall monitor performance of those controls in accordance with the monitoring plan entitled "NOx Emission Reductions From Heaters and Boilers: Monitoring Plan" submitted by Tesoro on November 20, 2001, as finally approved by EPA. Nothing in this Paragraph shall be construed to preclude BP, Tesoro or Giant from seeking EPA approval of modifications to such monitoring plans, provided that any such modified plan shall include, at a minimum, excess air or combustion O₂, air preheat temperature where applicable, and burner preventative maintenance monitoring.

K. BP shall demonstrate "next generation" ultra low-NOx burners so as to achieve 10 ppmvd (at 0% oxygen) NOx levels on Coker B-203 heater at the Texas City Facility. BP shall demonstrate next generation ultra low-NOx burners, as defined above, for a six (6) month demonstration period beginning no later than six (6) months after the Date of Lodging of the Consent Decree. BP shall operate the new burners to achieve the lowest feasible emissions of NOx. BP shall monitor performance of the heater with next generation technology by use of a CEMS, and shall report emissions results on a monthly basis no later

than thirty (30) days following the month in which the monitoring occurred. BP shall prepare a written evaluation of the next generation low-NOx burner demonstration, which shall include a discussion of effectiveness, economic and technical feasibility, and identification of the cost of installation. BP shall submit its report to EPA no later than sixty (60) days after completion of the six-month demonstration. BP shall not submit a claim of "Confidential Business Information" covering any aspect of the report, and acknowledges that the information in the report, and perhaps the report itself, will be made available for public distribution.

L. The requirements of this Paragraph do not exempt BP, Tesoro or Giant from complying with any and all Federal, state and local requirements which may require technology upgrade based on actions or activities occurring after the Date of Entry of the Consent Decree.

M. If BP or Tesoro proposes to transfer ownership of any refinery subject to Paragraphs 15. B. or C. and F. before the requirements of those paragraphs have been met, BP or Tesoro (as the case may be) shall notify EPA of that transfer and shall submit a proposed allocation to that refinery of its share of the control percentage and tonnage reduction requirements of those Paragraphs that will apply individually to that refinery after such transfer. EPA shall approve that allocation so long as it ensures that the overall requirements of applicable portions of Paragraphs 15. B. or C. and F. are satisfied.

4. Paragraph 82 of the Consent Decree is hereby amended to include the following information:

As to Giant:

Carl D. Shook

Executive Vice President
Giant Industries, Inc.
23733 North Scottsdale Road
Scottsdale, AZ 85255

and

Kim B. Bullerdick
Vice President and General Counsel
Giant Industries, Inc.
23733 North Scottsdale Road
Scottsdale, AZ 85255

The undersigned representatives are fully authorized to enter into the terms and conditions of this Second Amendment. This Second Amendment may be executed in several counterparts, each of which will be considered an original.

ORDER

Before the taking of any testimony, without adjudication of any issue of fact or law, and upon the consent and agreement of the Parties, it is:

ORDERED, ADJUDGED and DECREED that the foregoing Second Amendment to the Consent Decree is hereby approved and entered as a final order of this court.

Dated and entered this ____ day of _____, 2002

United States District Judge

WE HEREBY CONSENT to the foregoing Second Amendment to the Consent Decree entered in *United States, et al., v. BP Exploration and Oil Co., et al.*, Civil No. 2:96 CV 095 RL on August 29, 2001.

FOR PLAINTIFF THE UNITED STATES OF AMERICA

Date: 4.26.02

Tom Sansonetti
THOMAS L. SANSONETI
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

Adam M. Kushner
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Senior Counsel
Environmental Enforcement Section
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~~WE HEREBY CONSENT to the foregoing Second Amendment to the Consent Decree entered in *United States, et al., v. BP Exploration and Oil Co., et al.*, Civil No. 2:96 CV 095 RL on August 29, 2001.~~

~~FOR DEFENDANTS BP EXPLORATION AND OIL CO., AMOCO OIL COMPANY
n/d/b/a BP PRODUCTS NORTH AMERICA INC., AND ATLANTIC RICHFIELD
COMPANY~~

~~Date: _____
Neil R. Morris~~

~~_____
Manager, Mergers & Acquisitions~~

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FOR DEFENDANTS BP EXPLORATION AND OIL CO., AMOCO OIL COMPANY
n/d/b/a BP PRODUCTS NORTH AMERICA INC., AND ATLANTIC RICHFIELD
COMPANY

Date: _____

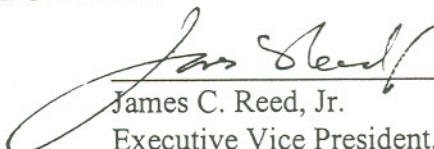


Neil R. Morris
Manager, Mergers & Acquisitions

WE HEREBY CONSENT to the foregoing Second Amendment to the Consent Decree entered in *United States, et al., v. BP Exploration and Oil Co., et al.*, Civil No. 2:96 CV 095 RL on August 29, 2001.

FOR TESORO PETROLEUM CORPORATION

Date: _____




James C. Reed, Jr.
Executive Vice President, General Counsel
and Secretary

AW

WE HEREBY CONSENT to the foregoing Second Amendment to the Consent Decree entered in *United States, et al., v. BP Exploration and Oil Co., et al.*, Civil No. 2:96 CV 095 RL on August 29, 2001.

FOR Giant Yorktown, Inc.,

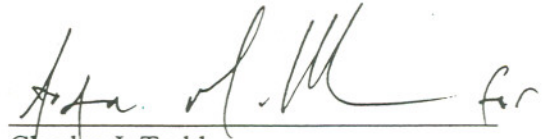
Date: May 14, 2002


~~Carl D. Shook~~
C. LEROY CROW

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FOR THE STATE OF INDIANA

Date: 5-20-02

A handwritten signature in dark ink, appearing to read "Charles J. Todd", written over a horizontal line.

Charles J. Todd
Chief Operating Officer
Indiana Department of Environmental Management

WE HEREBY CONSENT to the foregoing Second Amendment to the Consent Decree entered in *United States, et al., v. BP Exploration and Oil Co., et al.*, Civil No. 2:96 CV 095 RL on August 29, 2001.

FOR THE STATE OF OHIO

Date: 5-20-02

A handwritten signature in black ink, appearing to read "Brian F. Zima", written over a horizontal line.

Brian F. Zima
Assistant Attorney General

WE HEREBY CONSENT to the foregoing Second Amendment to the Consent Decree entered in *United States, et al., v. BP Exploration and Oil Co., et al.*, Civil No. 2:96 CV 095 RL on August 29, 2001.

FOR THE NORTHWEST AIR POLLUTION CONTROL AUTHORITY OF THE
STATE OF WASHINGTON

Date: 5-20-02


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